

Case 3357***Calamaria* H. Boie in F. Boie, 1827 (Reptilia, Serpentes): proposed conservation of usage by designation of *C. linnaei* H. Boie in F. Boie, 1827 as the type species**

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Abstract. The purpose of this application, under Articles 50.1 and 68.4 of the Code, is to conserve the long and continuing usage of the name *Calamaria* for a genus of Asian colubrid snakes by ruling that the nominal genus *Calamaria* was established by H. Boie in F. Boie (1827) and that its type species is *Calamaria linnaei* H. Boie in F. Boie, 1827. This would involve setting aside all previous fixations of type species for *Calamaria* before this date and designating *C. linnaei* as the type species. *Calamaria linnaei* H. Boie in F. Boie, 1827 has been used as a replacement name for *Coluber calamarius* Linnaeus, 1758, but the Commission is now asked to rule that this name denotes a separate taxon. These actions are required to avoid synonymy between *Calamaria* and the valid generic name *Oligodon* H. Boie in Fitzinger, 1826.

Keywords. Nomenclature; taxonomy; Reptilia; Serpentes; *Calamaria*; *Calamaria linnaei*; snakes; Asia.

1. The generic name *Calamaria* H. Boie in F. Boie, 1827 (columns 519, 539), type species *Coluber calamarius* Linnaeus, 1758 (p. 216) by original designation and tautonymy, was placed by the Commission on the Official List of Generic Names in Zoology (Opinion 92, 1926, *Smithsonian Miscellaneous Collections*, 73(4): 3) without realizing the potential for instability produced by this action. *Calamaria* in the sense of Boulenger (1894, p. 330), M. Smith (1943, p. 237), and Inger & Marx (1965, pp. 1–304) has had a long and continuous usage, with few exceptions, for a large group of Asian snakes. However, as detailed in 1966 by Brongersma, Inger & Marx (BZN 22: 303–313) its originally designated type species does not belong to *Calamaria* as generally recognized but to the valid genus *Oligodon* H. Boie in Fitzinger, 1826, type species *O. bitorquatum* H. Boie in Fitzinger, 1826 (pp. 29, 56.). Brongersma et al. (1966) petitioned the Commission (BZN 22: 303–313) to conserve the name *Calamaria* Boie, 1827 through a complex series of rulings. No action was taken by the Commission, but *Calamaria* continues to be used in the sense of Inger & Marx (1965) and Brongersma et al. (1966). The present application asks the Commission to reconsider the case for conservation of the name *Calamaria* in the

interest of stability and universality but through a different, and we trust simpler, solution than that proposed by Brongersma et al. (1966). In doing so we present the main issues involved without repeating all of their discussion which may be consulted for further detail.

2. The first use of the name *Calamaria* is in Fitzinger (1826, p. 56) where two species are listed as follows under the genus *Duberria*: '23. *D. lumbricoidea* m. Lumbricartige D[audin]. (*Calamaria lumbricoidea*. Boie). Ex Asia, Insula Java. 24. *D. tessellata* m. Gewürfelte D[audin]. (*Calamaria tessellata*. Boie.) Ex Asia, Insula Java'. *Calamaria* was not made an available name by this listing as it was published as a junior synonym of *Duberria* (Article 11.6 of the Code—Publication as a junior synonym) and no description or indication was given (Article 12 of the Code—Names published before 1931). The two listed nominal species are nomina nuda as they lack descriptions or indications.

3. The generic name *Calamaria* was first made available in a paper by Friedrich Boie (1826, column 981) in a listing of generic and species names derived from the large, never published manuscript and series of plates that formed the '*Erpétologie de Java*', prepared by his brother, Heinrich Boie, prior to the latter's departure to Java in December, 1825, where he died in 1827. References to *Calamaria* in Fitzinger (1826), Schlegel (1826a, 1826b) and F. Boie (1826, 1827) are based on this unpublished opus, which is hereafter cited as the *Erpétologie*. *Calamaria* H. Boie in F. Boie, 1826 (col. 981) is a new genus by indication (Article 12.2.5 of the Code—Names published before 1931, Indications), as the only included species is *Coluber calamarius* Linnaeus, 1758 (p. 216), which becomes the type species by tautonymy and monotypy. Note that Opinion 92 of the Commission incorrectly attributes the name to 'Boie, 1827, 236' (see below). It should also be noted that Melville & Smith (1987) did not list *Calamaria* in the Official List of Generic Names in Zoology 'pending further investigation of the case' fide Brongersma et al. (1966, p. 304).

4. The next usages of *Calamaria* are in two papers by Schlegel (1826a, 1826b), which list the names proposed by H. Boie in the unpublished *Erpétologie* but without descriptions. The first of these, in French, (Schlegel, 1826a, p. 236) presents the name as: N. Genre: *Calamaria* Boié, as including six of Boie's species (all nomina nuda) and the new replacement name, '[*Calamaria*] *linnaei* B. (*Col. calamaria* Linn.)'. Boie's name was apparently proposed to avoid tautonymy between the generic and specific names. This is the paper erroneously referred to in Opinion 92 as containing the original proposal of the name *Calamaria* and citing the date as 1827. Brongersma et al. (1966, p. 305) perpetuated the error of attributing the validation of the generic name to this paper but cited its correct date.

5. There has been disagreement in the *Bulletin of Zoological Nomenclature* regarding the date of publication of the second Schlegel paper, the '*Erpétologische Nachrichten*', a version in German of Schlegel (1826a), that appeared in *Isis von Oken*, vol. 20, pt. 3. In 1966, Brongersma et al. (BZN 22: 304–305) noted that the signatures of parts 1–3 of vol. 20 of *Isis* are dated 1826, and expressed confusion over publication scheduling. In 1968, H. Smith (BZN 25: 108) wrote that only parts 1–2 are dated on the title pages, and that part 3 'contains the first sections of the Literature-Register for 1827, and therefore could not have appeared in 1826'. Smith evidently was referring to the short list of titles in the '*Eingegangen*' section on the

back cover of part 3, where there is a single 1827 item from the Heidelberg publisher [Joseph] Engelmann. However, Smith overlooked an earlier 1827 entry in the list of books at the end of part 2, nor did he mention the 1826 date in the printer's gathering or signature title ('Isis B XX. Heft 3. 1826.') on the bottom of every fifth page of part 3. It is likely that the aforesaid 1827 works were merely advanced notices from the publisher, as was sometimes done in *Isis* (e.g. the 1827 *Eingegangen* entry in the penultimate part of previous vol. 19, 1826) and also in the *Literarischer Anzeiger* (the supplement shared by *Isis* and *Kritischen Annalen der Medicin*). *Isis* had lapsed temporarily from its annual/monthly publication schedule, with volumes 18 and 19 and the early part of 20 all appearing in 1826. Thus, there is no reliable basis for discarding the 1826 dates on parts 2–3 of vol. 20, and we accept a default date of December 31 for part 3. We were concerned also with the correctness of the generally accepted 'October' date for Schlegel (1826a) because of an indication earlier in the journal (p. 232) that part of a reviewed article had been published in December 1826; however, all parts of the reviewed item had actually been published in 1824. References to the 'Nachrichten' paper, therefore, are cited as 'Schlegel (1826b)' throughout the present application. Schlegel (1826b, column 291) lists 'N. G. *Calamaria* Boie' with the same complement of species as in Schlegel (1826a).

6. In a fourth paper based on the *Erpétologie* manuscript, F. Boie (1827, column 519) presents a diagnosis of the genus *Calamaria* and lists *Coluber calamarius* L. as the type species. Later (columns 539–540) six species are referred to the genus, three of which are made available by brief descriptions, two are nomina nuda, and *C. limmaei* H. Boie (*Col. calamarius* Linn.) is listed without description. All subsequent authors prior to Andersson (1899, p. 8) regarded *Coluber calamarius* and *Calamaria limmaei* to be based on the same species.

7. No description of the Java snake that the Boie brothers and Schlegel called *Calamaria limmaei* appeared until it was described and figured by Schlegel (1837, [vol. 2], pp. 28–30, pl. 1, figs. 17, 18), with reference to 'une autre à-pen-près semblable: Cal. Linnaei, fig. dans l'*Erpét. de Java* Pl. 22, fig. 2'. Inger & Marx (1965, pp. 200–201) pointed out that one of the snakes (Nationaal Natuurhistorisch Museum, Leiden, RMNH 27) used as the basis for Schlegel's description was the specimen upon which H. Boie based the name *C. limmaei* in the unpublished *Erpétologie*. Inger & Marx stated that this specimen is the holotype of *C. limmaei* but, according to the Code (Article 67.8), as a new replacement name *C. limmaei* must take the same type as *Coluber calamarius* Linnaeus, 1758. In addition, Schlegel's account is based on a number of other specimens that were given names in the *Erpétologie* manuscript, some of which were made available in F. Boie, 1827 and would have priority over *C. limmaei* if Schlegel's account were considered to make it available.

8. Andersson (1899, pp. 8–9) discovered that the type specimen of *Coluber calamarius* Linnaeus was not congeneric with the specimen that was the basis for H. Boie's *Calamaria limmaei* but was a representative of the genus *Oligodon* H. Boie in Fitzinger, 1826 (pp. 29, 56). Because *C. limmaei* is a new replacement name in its original usage (Schlegel, 1826a), strict enforcement of the Principle of Priority makes *Calamaria* a junior subjective synonym of *Oligodon*. Brongersma et al. (1966, pp. 308–309) have documented the nearly universal use of the name *Calamaria* for the genus diagnosed by H. Boie in F. Boie (1827) and the specific name *C. limmaei* following from Duméril, Bibron & Duméril, 1854 (p. 60) to 1966. Although no action

was taken by the Commission to conserve *Calamaria* or *C. linnaei*, these names have been used universally in the same sense to the present.

9. Brongersma et al. (1966, pp. 307–308) were much concerned that almost all the possible solutions to this problem had unstabilizing nomenclatural ramifications but their proposal was too complex to ensure action by the Commission. However, M. Smith (1943, p. 237) earlier had made the insightful, if not technically correct, suggestion that ‘The type of *Calamaria* therefore is *C. linnaei*, the snake that Boie had before him, not the Linnean species, which he thought identical’. A similar suggestion was made by L.B. Holthuis in a letter to the Commission Secretariat in 1966, with the caveat that the specimen (RMNH 27) upon which the name and description in the *Erpétologie* was based should be designated the neotype of *C. linnaei*. We have followed the leads of Smith and Holthuis in the request below.

10. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power:
 - (a) to rule that all usages of the name *Calamaria* prior to that by H. Boie in F. Boie (1827) are unavailable;
 - (b) to cancel the part of Opinion 92 that deals with *Calamaria* H. Boie in F. Boie, 1827;
 - (c) to rule that the nominal species *Calamaria linnaei* (misidentified as *Coluber calamarius*) shall not be treated as a replacement name but as a new available name published by H. Boie in F. Boie, 1827 in conjunction with the diagnosis of the genus and that its holotype is RMNH 27 collected in Java, 1820–1823 by H. Kuhl and J.C. van Hasselt;
 - (d) to set aside all previous type species fixations for the nominal genus *Calamaria* H. Boie in F. Boie, 1827 and to designate *Calamaria linnaei* H. Boie in F. Boie, 1827 as the type species;
- (2) to place on the Official List of Generic Names in Zoology the name *Calamaria* H. Boie in F. Boie, 1827 (gender: feminine), type species by designation in (1)(d) above *Calamaria linnaei* H. Boie in F. Boie, 1827;
- (3) to place on the Official List of Specific Names in Zoology the name *linnaei* H. Boie in F. Boie, 1827, as published in the binomen *Calamaria linnaei* (specific name of the type species of *Calamaria*).

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Comments on this case are invited for publication (subject to editing) in the *Bulletin*; they should be sent to the Executive Secretary, I.C.Z.N., c/o Natural History Museum, Cromwell Road, London SW7 5BD, U.K. (e-mail: iczn@nhm.ac.uk).